



# UNITED STATES PATENT AND TRADEMARK OFFICE

8

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/606,706	06/25/2003	Eiki Yasukawa	03248C/HG	5090	
1933	7590	01/02/2008	EXAMINER		
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC 220 Fifth Avenue 16TH Floor NEW YORK, NY 10001-7708			MERCADO, JULIAN A		
ART UNIT	PAPER NUMBER	1795			
MAIL DATE	DELIVERY MODE	01/02/2008	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/606,706	YASUKAWA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Julian Mercado	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 October 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 3,4,9-11,13-15 and 18-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 3,4, 9-11, 13-15, 18-30 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 24, 2007 has been entered.

Claims 3, 4, 9-11, 13-15 and 18-30 are pending.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 9-11, 13-15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable Tan et al. (JP 11-260401) in view of Yoshimura et al. (JP 4-087156).

Claims 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al. in view of Yoshimura et al., and further in view of Sonobe et al. (U.S. Pat. 5,527,643) and Kameda et al. (U.S. Pat. 6,632,569 B1)

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al. in view of Yoshimura et al., Sonobe et al. and Kameda et al., and further in view of Watanabe et al. (U.S. Pat. 6,682,856 B1).

The rejections are maintained for the reasons of record. The examiner notes that the pending claims are as previously presented and/or as originally filed. Applicant's arguments filed with the present amendment have been fully considered, however they are not found persuasive.

Starting on page 9, the estimation of 1.4 V for the reductive decomposition potential of TMP is said to have been obtained by the inventors after filing the present application, however, the source of this finding cannot be ascertained, nor has any citation in support thereof been provided for the examiner's consideration. Accordingly, the subsequent conclusions based on any comparison to this decomposition potential, based on The Journal of Electrochemical Society for an estimated 0.8 to 1.3 V of reduction inhibition by VC and based on The Electrochemistry Communications for a film-forming reaction of VEC of about 1.4 V, is not found persuasive. Notwithstanding, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). As set forth in the April, 26, 2007 Office action, to modify Tan et al. by including VEC as part of its electrolyte solvent would be motivated by the prevention of a "decrease in the discharge characteristic after storing...."

Applicant's assertions on "battery characteristics" of either the prior art or the instant invention, or both, are also not clearly understood, as "battery characteristics" is deemed an

omnibus feature; it would greatly assist the examiner in giving applicant's assertions its fullest consideration if these alleged battery characteristics were more specifically drawn to an electrochemical property of the battery, e.g. its voltage or capacity. See, for example, the 2<sup>nd</sup> and 3rd paragraphs of page 10, the 1<sup>st</sup> paragraph of page 11 (both instances), and also the 2<sup>nd</sup> paragraph of that page (both instances), i.e. the assertion of "desirable battery characteristics" is not understood in relation to an actual observation.

The declaration under 37 CFR 1.132 filed on October 16, 2006 is insufficient to overcome the rejection of claims 3, 4, 9-11, 13-15 and 18-30 based upon the cited references as set forth in the last Office action because evidence of unexpected results must compare the claimed invention with the closest prior art. Applicant appears to assert differences between a battery having VC alone in comparison to a battery having a co-presence of VC and VEC. However, for the reasons of record, a battery having both VC and VEC is taught or at least suggested by the Tan et al. in view of Yoshimura et al. Any assertions of unexpected results in comparison to the prior art must be based on a similar teaching of both VC and VEC as electrolyte solutes, and not just VC alone.

The examiner notes that Electrochimica Acta appears to be relied upon solely to establish that in washing, heat-treating and coating graphite, notwithstanding its irrelevance to the present invention, a charge-discharge efficiency increase of 6 to 12% is arguably characterized by those concerned parties as being "greatly improved." The examiner may concede at a later date that an increase of this magnitude is non-trivial, however, any basis for conclusions must be in comparison to the closest prior art, which has yet to be established.

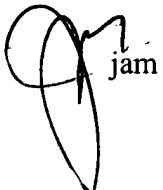
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
jam

STEPHEN KALAFUT  
PRIMARY EXAMINER  
GROUP 1100

